

IN THE CLAIMS

1. (Currently amended) A homozygous genetically modified male ~~non-human animal or avian species-mouse~~ exhibiting reduced levels of a Bcl-w protein or a functional derivative or homologue thereof, wherein said Bcl-w protein comprises an amino acid sequence set forth in SEQ ID NO: 4 ~~or is an amino acid sequence having at least about 47% similarity thereto~~ and wherein said male ~~mouse non-human animal or avian species~~ has an incapacity or a reduced capacity when compared to ~~wild type male non-human animal or avian species to undergo non-genetically modified mice to undergo~~ spermatogenesis.

2. (Cancelled)

3. (Currently amended) A homozygous genetically modified male ~~non-human animal or avian species-mouse~~ according to claim 1 wherein the Bcl-w protein is encoded by a nucleotide sequence as set forth in SEQ ID NO: 3, or a nucleotide sequence ~~having at least about 47% identity thereto, or a nucleotide sequence~~ that hybridizes to SEQ ID NO: 3 under ~~low~~high stringency conditions ~~of~~ at 42°C.

4-8. (Cancelled)

9. (Currently amended) A homozygous genetically modified male ~~non-human animal or avian species-mouse~~ according to ~~any one of claims 1 and 3~~ claim 1 or 3 wherein the modified animal comprises a deletion in the *bcl-w* gene.

10-11. (Cancelled)

12. (Currently amended) A homozygous genetically modified male ~~non-human animal mouse according to claim 1 or 3~~ comprising a mutation in one or more alleles of a gene which comprises a sequence of nucleotides as set forth in SEQ ID NO: 3, ~~a nucleotide sequence having at least about 47% identity thereto, or a sequence which hybridizes to SEQ ID NO: 3 under low~~

~~stringency conditions at 42°C, wherein said male non-human animal or avian species has an incapacity or a reduced capacity when compared to wild type male non-human animal or avian species to undergo spermatogenesis.~~

13. (Cancelled)

14. (Currently amended) A method of producing a homozygous genetically modified male ~~non-human animal substantially~~ mouse incapable of producing Bcl-w, said method comprising introducing a genetic sequence into embryonic stem (ES) cells, which genetic sequence targets the *bcl-w* gene or a transcript thereof and introducing said ES cells into blastocysts to produce a chimeric animal.

15. (Cancelled)

16. (Currently amended) A method according to claim 14 ~~or 15~~ wherein the introduced genetic sequence is an antisense molecule, encodes an antisense molecule, encodes or is a sense molecule or permits excision of the *bcl-w* gene or a region within the *bcl-w* gene.

17. (Previously presented) A method according to claim 16 wherein the introduced genetic sequence is bounded by sites that permit excision of the region between said sites by the action of a Cre recombinase.

18. (Currently amended) A homozygous genetically modified male ~~non-human animal~~ mouse comprising a mutation in the *bcl-w* gene or a derivative ~~or homologue~~ thereof wherein ~~an adult male of said animal~~ mouse exhibits the following characteristics:

- (i) is substantially infertile;
- (ii) possesses disorganized seminiferous tubules;
- (iii) exhibits heterogenous degeneration of germ cell types; and
- (iv) possesses no other major abnormalities as determined by histological examination.

19. (Cancelled)

20. (Currently amended) A homozygous genetically modified male ~~non-human animal or avian species~~ mouse exhibiting reduced levels of a Bcl-w protein having an amino acid sequence as set forth in SEQ ID NO: 4 or a Bcl-w protein encoded by a nucleotide sequence substantially set forth in SEQ ID NO:3 or a nucleotide sequence that hybridizes to SEQ ID NO: 3 under ~~low~~ high stringency conditions at 42 °C wherein said male ~~non-human animal or avian species~~ mouse has an incapacity or a reduced capacity to undergo spermatogenesis.